Chapter 2. BROADCAST PROCEDURES

Section 1. GENERAL

2-1-1. TYPES OF BROADCASTS

Weather and flight information shall be broadcast/recorded by one or more of the following categories:

a. Transcribed Weather Broadcast (TWEB).

b. Telephone Information Briefing Service (TIBS).

c. Hazardous Inflight Weather Advisory Service (HIWAS).

d. Meteorological Information for Aircraft in Flight (VOLMET ICAO).

2-1-2. SPEECH RATE

Data shall be spoken at a rate of 100 to 120 words-per-minute.

2-1-3. INTERRUPTION OF BROADCAST

Interrupt broadcast only when you believe that a pilot requires immediate attention; e.g., to issue an airport advisory. When a pilot calls during a broadcast:

a. Broadcast for a short interval on the frequency to which the pilot is listening simultaneously with the broadcast frequencies, and complete the aircraft contact immediately after the broadcast.

b. If the pilot repeats the call, interrupt the broadcast and answer the call.

2-1-4. REDUCING RECORDED WEATHER INFORMATION SERVICES

Recorded weather information services (TWEB, VOR TWEB, and TIBS) may be reduced during the hours of 1800-0600 local time only. Resumption of full broadcast service should be adjusted seasonally to coincide with daylight hours. During the period of reduced broadcast, record a statement indicating when the broadcast will be resumed and to contact Flight Service for weather briefing and other services.

PHRASEOLOGY-
THE (TWEB/TIBS) RECORDING IS SUSPENDED. REGULAR RECORDED WEATHER SERVICE WILL BE RESUMED AT (time) ZULU/ (time) LOCAL. FOR PILOT WEATHER BRIEFING AND OTHER SERVICES CONTACT A FLIGHT SERVICE FACILITY. CALL 1-800-WX-BRIEF.

2-1-5. ANNOUNCING MISSING ITEMS

With the exception of RVR, announce the word "MISSING" when any items or components of a weather report are not reported, or in place of unreadable or obviously incorrect items or portions of weather reports. If the complete report is not available for broadcast, state the location and the word "MISSING." When appropriate, instead of speaking the name of several locations with missing reports, announce: "OTHER SCHEDULED REPORTS MISSING."

NOTE-
On occasion, a parameter from an automated observation may be reported as missing in the body of the report but is available as a manually reported parameter in the remarks section. When the report is spoken, include the manually reported element in its proper sequence within the report.

2-1-6. WEATHER REPORT PHRASEOLOGY

Use the following phraseology and procedures for radio-telephone communications and broadcast of surface weather observations:

a. *Location.*

1. Announce the geographic name (not the identifier) once for broadcasts.

2. When the location name is duplicated within 500 miles, follow the location name with the state name.

EXAMPLE-
"Wilmington, North Carolina."
"Wilmington, Delaware."

3. When weather reports originate at more than one airport at the same geographical location, identify the airport.

EXAMPLE-
"Chicago Midway."
"Chicago O'Hare."

4. Where it is considered necessary and is requested by the military base commander, broadcast military observations by stating the location, the name of the airport if different, and the controlling military branch.

EXAMPLE-
"Fort Riley, Marshall Army Air Field."
"Andrews Air Force Base."
"Norfolk Naval Air Station."

b. *Automated Observation.* If AUTO appears after the date/time element, follow the location announcement with the phrase "AUTOMATED."

PHRASEOLOGY-
(Location) AUTOMATED.

c. *Special Reports.* If a special report is available at the time of the broadcast, follow the location with the words "SPECIAL REPORT, (last two digits of the time) OBSERVATION."

d. *Wind Direction and Speed.* Announce wind direction and speed by stating the word WIND followed by the separate digits of the wind direction to the nearest 10 degrees and the separate digits of the speed. A "G" between two wind speed values is announced as GUSTS. Broadcast local wind as it appears in the report. Announce the variability of wind at the end of the wind group. (See TBL 2-1-1)

Wind Direction and Speed

Wind	*Phraseology*
VRB04KT	WIND VARIABLE AT FOUR.
00000KT	WIND CALM.
26012KT	WIND TWO SIX ZERO AT ONE TWO.
29012KT 260V320	WIND TWO NINER ZERO AT ONE TWO WIND VARIABLE BETWEEN TWO SIX ZERO AND THREE TWO ZERO.
30008KT	WIND THREE ZERO ZERO AT EIGHT.
36012G20KT	WIND THREE SIX ZERO AT ONE TWO GUSTS TWO ZERO.

TBL 2-1-1

e. *Visibility.* Announce visibility as follows: (See TBL 2-1-2.)

Visibility

Contraction	*Phraseology*
M1/4SM	VISIBILITY LESS THAN ONE QUARTER.
0SM	VISIBILITY ZERO.
1/16SM	VISIBILITY ONE SIXTEENTH.
1/8SM	VISIBILITY ONE EIGHTH.
3/4SM	VISIBILITY THREE QUARTERS.
1 1/2SM	VISIBILITY ONE AND ONE-HALF.
8SM	VISIBILITY EIGHT.
25SM	VISIBILITY TWO FIVE.

TBL 2-1-2

NOTE-
When visibility is less than 3 miles and variable, the variable limits will be reported in the remarks.

f. *RVR.* When RVR is reported, announce in accordance with TBL 2-1-3. Omit RVR when it is not reported. Do not announce as missing.

RVR

Contraction	*Phraseology*
R16/M0600FT	RUNWAY ONE SIX VISUAL RANGE LESS THAN SIX HUNDRED.
R17L/2400V 3000FT	RUNWAY ONE SEVEN LEFT VISUAL RANGE VARIABLE BETWEEN TWO THOUSAND FOUR HUNDRED AND THREE THOUSAND.
R28L/3500FT	RUNWAY TWO EIGHT LEFT VISUAL RANGE THREE THOUSAND FIVE HUNDRED.
R35R/P6000FT	RUNWAY THREE FIVE RIGHT VISUAL RANGE MORE THAN SIX THOUSAND.
Note: "R-V-R" may be spoken in lieu of "visual range."	

TBL 2-1-3

g. *Weather Elements.* Table 2-1-4 depicts sample phraseology for weather element contractions. Intensity refers to precipitation, not descriptors. Proximity is spoken after the phenomenon to which it refers. Descriptors are spoken ahead of weather phenomenon with the exception of "showers" which is spoken after the precipitation. Table TBL 2-1-8 contains a complete list of weather elements and appropriate phraseology.

Examples of combining intensity, descriptors and weather phenomenon.

Contractions	*Phraseology*
BLSN	BLOWING SNOW.
FZDZ	FREEZING DRIZZLE.
FZRA	FREEZING RAIN.
-FZRAPL	LIGHT FREEZING RAIN, ICE PELLETS.
MIFG	SHALLOW FOG.
SHRA	RAIN SHOWERS.
+TSRA	THUNDERSTORM, HEAVY RAIN (SHOWERS)[1].
TSRA	THUNDERSTORM, RAIN.
+TSRAGR	THUNDERSTORM, HEAVY RAIN, HAIL.
-SHRA	LIGHT RAIN SHOWERS.
SHSN	SNOW SHOWERS.
VCSH	SHOWERS IN THE VICINITY.
[1]Since thunderstorms imply showery precipitation, "showers" may be used to describe precipitation that accompany thunderstorms.	

TBL 2-1-4

h. *Ceiling and sky coverage.*

1. Broadcast Sky Coverage in the same order as reported on the weather observation. Announce ceiling as follows: (See TBL 2-1-5.)

Ceiling and Sky coverage

Designator	*Phraseology*
BKN000[1]	SKY PARTIALLY OBSCURED.
BKN000[2]	CEILING LESS THAN FIVE ZERO BROKEN.
FEW000[1]	SKY PARTIALLY OBSCURED.
FEW000[2]	FEW CLOUDS AT LESS THAN FIVE ZERO.
SCT000[1]	SKY PARTIALLY OBSCURED.
SCT000[2]	LESS THAN FIVE ZERO SCATTERED.
(lowest layer aloft) BKN/ OVC	(precede with) CEILING.
VV	INDEFINITE CEILING.
[1] Surface-based obscurations. Requires remarks, i.e. RMK FG SCT000, FU BKN000, etc. [2] No remark means the layer is aloft.	

TBL 2-1-5

2. State cloud heights in tens, hundreds and/or thousands of feet. (See TBL 2-1-6.)

Cloud heights

Number	*Phraseology*
000[1]	ZERO.
003	THREE HUNDRED.
018	ONE THOUSAND EIGHT HUNDRED.
200	TWO ZERO THOUSAND.
[1] Spoken as zero only when used with VV.	

TBL 2-1-6

NOTE-
When the ceiling is less than 3,000 feet and variable, the variable limits will be reported in the remarks.

3. Announce sky conditions as indicated. (See TBL 2-1-7.)

Sky conditions

Contraction	*Phraseology*
BKN	(height) BROKEN.
CLR[1]	CLEAR BELOW ONE TWO THOUSAND.
FEW	FEW CLOUDS AT (height).
SCT	(height) SCATTERED.
SKC	CLEAR.
OVC	(height) OVERCAST.
[1] Automated weather reports.	

TBL 2-1-7

Weather Elements

QUALIFIER				WEATHER PHENOMENA					
INTENSITY or PROXIMITY 1		DESCRIPTOR 2		PRECIPITATION 3		OBSCURATION 4		OTHER 5	
-	Light	**MI**	Shallow	**DZ**	Drizzle	**BR**	Mist	**PO**	Well-Developed Dust/Sand Whirls
		BC	Patchy	**RA**	Rain	**FG**	Fog	**SQ**	Squalls
	Moderate (No Qualifier)	**DR**	Low Drifting	**SN**	Snow	**FU**	Smoke	**FC** **+FC**	Funnel Cloud, Tornado or Waterspout
		BL	Blowing	**SG**	Snow Grains	**DU**	Dust	**SS**	Sandstorm
+	Heavy	**SH**	Showers	**IC**	Ice Crystals	**SA**	Sand	**DS**	Duststorm
		TS	Thunderstorm	**PL**	Ice Pellets	**HZ**	Haze		
VC	In the Vicinity	**FZ**	Freezing	**GR**	Hail	**PY**	Spray		
		PR	Partial	**GS**	Small Hail or Snow Pellets (< 1/4")	**VA**	Volcanic Ash		
				UP	*Unknown Precipitation				

*** Automated stations only.**

TBL 2-1-8

4. The following are examples of broadcast phraseology of sky and ceiling conditions: (See TBL 2-1-9.)

Sky and ceiling conditions

Condition	*Phraseology*
BKN000 BKN010 BKN050 RMK FG BKN000	SKY PARTIALLY OBSCURED, CEILING ONE THOUSAND BROKEN, FIVE THOUSAND BROKEN. FOG OBSCURING FIVE TO SEVEN EIGHTS OF THE SKY.
BKN010	CEILING ONE THOUSAND BROKEN.
SCT000 SCT020 OVC035 RMK FG SCT000	SKY PARTIALLY OBSCURED, TWO THOUSAND SCATTERED, CEILING THREE THOUSAND FIVE HUNDRED OVERCAST. FOG OBSCURING THREE TO FOUR EIGHTS OF THE SKY.
SCT020 OVC250	TWO THOUSAND SCATTERED, CEILING TWO FIVE THOUSAND OVERCAST.
VV000	INDEFINITE CEILING ZERO.
VV012	INDEFINITE CEILING ONE THOUSAND TWO HUNDRED.

TBL 2-1-9

i. *Temperature and Dew Point.* Announce temperature and dew point in degrees Celsius. Temperatures below zero are preceded with an M and are announced by prefixing the word MINUS to the values. When the temperature and dew point spread is greater than 3 degrees, broadcast only the temperature. (See TBL 2-1-10.)

Temperature and Dew Point

Value	*Phraseology*
02/M01	TEMPERATURE TWO, DEW POINT MINUS ONE.
14/09	TEMPERATURE ONE FOUR.
36/34	TEMPERATURE THREE SIX, DEW POINT THREE FOUR.

TBL 2-1-10

j. *Altimeter Setting.* Announce the four digits of the altimeter setting. (See TBL 2-1-11.)

Altimeter Setting

	Phraseology
A2989	ALTIMETER TWO NINER EIGHT NINER.
A3025	ALTIMETER THREE ZERO TWO FIVE.

TBL 2-1-11

k. *Remarks.* Announce pertinent remarks. Do not broadcast additive data or other information intended for NWS analysis or processing that does not contribute to the description of the weather occurring at the station. (See TBL 2-1-12.)

Remarks

Remarks	*Phraseology*
ACSL OVR RDG SW	STANDING LENTICULAR ALTOCUMULUS OVER RIDGE SOUTHWEST.
FG SCT000	FOG OBSCURING THREE TO FOUR EIGHTHS OF SKY.
FU SCT012	SMOKE LAYER ONE THOUSAND TWO HUNDRED SCATTERED.
SCT020 V BKN	TWO THOUSAND SCATTERED VARIABLE BROKEN.
SHRA E	RAIN SHOWERS, EAST.
TS OHD MOV E LTGCG	THUNDERSTORM OVERHEAD MOVING EAST. LIGHTNING CLOUD TO GROUND.
VIS 3/4V1 1/2	VISIBILITY VARIABLE BETWEEN THREE QUARTERS AND ONE AND ONE HALF.
VIS NE 3 S 2	VISIBILITY NORTHEAST THREE, SOUTH TWO.

TBL 2-1-12

2-1-7. CURRENT DATA

An aviation surface report is considered current for 1 hour beyond the standard time of observation (H+00) unless superseded by a special or local observation or by the next hourly report. Do not broadcast obsolete data.

Section 2. TRANSCRIBED WEATHER BROADCASTS (TWEB)

2-2-1. GENERAL

a. This transcribed broadcast service provides continuous aeronautical and meteorological information on L/MF and VOR facilities.

b. At TWEB equipment (FAA 5210) locations controlling two or more VOR's, the one used least for ground-to-air communications, preferably the nearest VOR, may be used as a TWEB outlet simultaneously with the NDB facility. Where this is accomplished, capability to manually override the broadcast shall be provided for emergency communications.

2-2-2. CONTENT

The sequence, source, and content of transcribed broadcast material shall be:

a. *Introduction.*

PHRASEOLOGY-
TRANSCRIBED AVIATION WEATHER BROADCAST PREPARED AT (time) ZULU.

b. *Synopsis.* Prepared by selected Weather Service Forecast Offices (WSFO's) and stored in the Weather Message Switching Center (WMSC).

c. *Adverse Conditions.* Extracted from WST, WS, WA, CWA, and AWW.

PHRASEOLOGY-
WEATHER ADVISORIES ARE IN EFFECT FOR (adverse conditions) OVER (geographical area).

d. *TWEB Route Forecasts.* Include valid time of forecasts prepared by WSFO's and stored in WMSC.

PHRASEOLOGY-
ROUTE FORECAST/S VALID UNTIL (time) ZULU.

e. *Winds Aloft Forecast.* Broadcast winds aloft forecast for the location nearest to the TWEB. The broadcast should include the levels from 3,000 to 12,000 feet, but shall always include at least two forecast levels above the surface.

PHRASEOLOGY-
WINDS ALOFT FORECAST VALID UNTIL (time) ZULU.
(Altitude).

(Altitude) (direction) AT (speed).

(Altitude) (direction) AT (speed).

(Altitude) (direction) AT (speed).

f. *Radar Reports (RAREP's).* Use local or pertinent RAREP's. If the facility has access to real time weather radar equipment, summarize observed data using the RAREP's to determine precipitation type, intensity, movement, and height.

g. *Surface Weather Reports.* Record surface reports as described in para 2-1-6. Broadcast surface reports for the parent station and not more than 25 weather reporting points.

1. Broadcast local reports first, then the remainder of the reports beginning with the first station east of true north and continuing clockwise around the TWEB location.

2. Announce the location name of a surface report once.

(a) Surface weather broadcast introduction:

PHRASEOLOGY-
AVIATION WEATHER, (4 digits of time), ZULU OBSERVATIONS.

(b) Special weather reports:

PHRASEOLOGY-
(Location name) SPECIAL REPORT (last 2 digits of time) OBSERVATION, (weather report).

h. *Density Altitude.* Include temperature and the statement "CHECK DENSITY ALTITUDE" as part of the surface weather broadcast for any station with a field elevation of 2,000 feet MSL or above that meets the following criteria: (See TBL 2-2-1.)

Density Altitude

Field Elevation	*Temperature (C)*
2,000-2,999	29 degrees or higher
3,000-3,999	27 degrees or higher
4,000-4,999	24 degrees or higher
5,000-5,999	21 degrees or higher
6,000-6,999	18 degrees or higher
7,000-higher	16 degrees or higher

TBL 2-2-1

i. *PIREP's.* Summarize PIREP's and, if the weather conditions meet soliciting requirements, append a request for PIREP's.

1. Summary.

PHRASEOLOGY-
PILOT WEATHER REPORTS SUMMARY (text).

2. Request for PIREP's, if applicable. (See para 9-2-5.)

PHRASEOLOGY-
PILOT WEATHER REPORTS ARE REQUESTED (location, area) FOR (cloud tops, icing, turbulence, etc.). CONTACT FLIGHT WATCH OR A FLIGHT SERVICE STATION.

NOTE-
Delete reference to FLIGHT WATCH when not available at the time of broadcast.

j. *ALNOT Alert Announcement*, if applicable.

PHRASEOLOGY-
OVERDUE AIRCRAFT ALERT, (time) ZULU (aircraft identification), (color), (type), DEPARTED (airport) VIA (route), (destination). LAST KNOWN POSITION (state last known position). THIS AIRCRAFT IS OVERDUE. ALL AIRCRAFT ARE REQUESTED TO MONITOR ONE TWO ONE POINT FIVE FOR E-L-T SIGNAL. INFORM THE NEAREST F-A-A FACILITY OF ANY INFORMATION REGARDING THIS AIRCRAFT.

k. *Closing statement.*

PHRASEOLOGY-
FOR NOTAM'S, MILITARY TRAINING ACTIVITY, OR OTHER SERVICES, CONTACT A FLIGHT SERVICE STATION.

2-2-3. TESTING TWEB EQUIPMENT

When TWEB equipment is to be tested, broadcast an advisory to this effect. Care shall be exercised to ensure no obsolete information is broadcast during a testing period.

2-2-4. SERVICE MAY BE SUSPENDED

TWEB service may be suspended:

a. For routine maintenance only during periods when weather conditions within 100 miles of the broadcast outlet are equal to or better than a ceiling of 3,000 feet and visibility of 5 miles.

b. When the equipment fails. If a malfunction occurs in the recording or control unit but the tape transport unit remains operative, continue broadcasting current data. Remove data as it becomes obsolete.

2-2-5. MONITORING

a. At TWEB equipment locations, listen to at least one complete TWEB cycle each hour. Check for completeness, accuracy, speech rate, and proper enunciation. Correct any noted irregularities.

b. If practical:

1. The control facility shall monitor the transmissions through local outlet.

2. The AFSS/FSS associated with a remote outlet shall monitor the transmissions for a sufficient period each hour to assure voice quality and clarity.

c. Promptly correct or inform the TWEB facility of any irregularities.

Section 3. VOR TWEB

2-3-1. GENERAL

This transcribed broadcast service provides continuous aeronautical and meteorological information on VOR facilities using ATIS-type equipment.

2-3-2. CONTENT

The sequence and content of transcribed broadcast material shall be:

a. Introduction.

PHRASEOLOGY-
TRANSCRIBED AVIATION WEATHER BROADCAST PREPARED AT (time) ZULU.

b. Adverse conditions extracted from WST's, WS's, WA's, CWA's, and AWW's.

PHRASEOLOGY-
WEATHER ADVISORIES ARE IN EFFECT FOR (adverse conditions) OVER (geographic area).

c. Surface reports (including PIREP's) for the parent station and a maximum of five adjacent stations. Record surface reports as described in para 2-1-6, Weather Report Phraseology. Announce the location name of a surface report once. Introduction denoted in subpara 2-2-2g2(a), Phraseology.

d. Density Altitude. Include temperature and the statement "CHECK DENSITY ALTITUDE" if any of the stations meet the criteria listed in subpara 2-2-2h.

e. Terminal forecast information for the parent station and for one other location (facility option) including valid time for the forecast involved.

PHRASEOLOGY-
TERMINAL FORECAST FOR (location). VALID UNTIL (time) ZULU (forecast text).

f. PIREP request, if applicable. (See subpara 9-2-5, Soliciting PIREP's.)

PHRASEOLOGY-
PILOT WEATHER REPORTS REQUESTED (location, area) FOR (icing, turbulence, cloud tops, etc.). CONTACT FLIGHT WATCH OR A FLIGHT SERVICE STATION.

NOTE-
Delete all reference to FLIGHT WATCH when not available at time of broadcast.

g. ALNOT alert announcement, if applicable. (See subpara 2-2-2j, Phraseology.)

h. Closing statement.

PHRASEOLOGY-
FOR NOTAM's, MILITARY TRAINING ACTIVITY, OR OTHER SERVICES, CONTACT A FLIGHT SERVICE STATION.

2-3-3. MONITORING (VOR)

At VOR TWEB equipment locations, listen to at least one complete TWEB cycle each hour and correct any noted irregularities.

Section 4. TELEPHONE INFORMATION BRIEFING SERVICE (TIBS) FOR AUTOMATED FLIGHT SERVICE STATIONS (AFSS)

2-4-1. GENERAL

a. TIBS provides a continuous telephone recording of meteorological and/or aeronautical information.

1. TIBS shall contain:

(a) Area and/or route briefings.

(b) Airspace procedures, if applicable.

(c) Special announcements, if applicable.

2. TIBS should also contain, but not be limited to:

(a) Surface observations (METAR's).

(b) Terminal forecasts (TAF's).

(c) Winds/temperatures aloft forecasts.

NOTE-
User needs should dictate the content of these recordings.

b. Each AFSS shall provide at least four route and/or area briefings. As a minimum, area briefings should encompass a 50 NM radius. Each briefing should require the pilot to access no more than two channels which shall be route and/or area specific. Pilots shall have access to NOTAM data through one of the following:

1. Area or route briefings.

2. On separate channels which are designated specifically for NOTAM's.

3. By access to a briefer.

c. Separate channels shall be designated for each route, area, local meteorological/aeronautical information, special event, airspace procedures, etc.

EXAMPLE-

201	*Houston local area (75 NMR)*
202	*Houston to New Orleans*
203	*Houston to Brownsville*
204	*Houston to Midland*
205	*Houston to Dallas/Ft. Worth*
206	*Houston area surface observations*
207	*Houston area terminal forecasts*
208	*Houston to Shreveport*
209-224	*(Facility discretion as user needs dictate)*

2-4-2. AREA/ROUTE BRIEFING PROCEDURES

Service is provided 24 hours a day, but may be reduced in accordance with para 2-1-4. Recorded information shall be updated as conditions change; e.g., conditions improve from IFR to MVFR or from MVFR to VFR, or conditions decrease from VFR to MVFR or from MVFR to IFR. Area and route forecast channels shall be updated whenever material is updated.

a. Introduction. State the preparation time and the route and/or the area of coverage. The service area may be configured to meet the individual facility's needs; e.g., 50 NM radius, route oriented.

PHRASEOLOGY-
THIS RECORDING PREPARED AT (time) LOCAL or (time) ZULU. BRIEFING SUMMARY FOR:

A (number of miles) NAUTICAL MILE RADIUS OF (location),
or
THE ROUTE FROM (location) TO (location).

b. Adverse Conditions. Summarize WST, WS, WA, CWA, AWW, and any other available information that may adversely affect flight in the route/area.

PHRASEOLOGY-
WEATHER ADVISORIES ARE IN EFFECT FOR (adverse conditions) OVER (geographic area) (text).

c. VFR Not Recommended Statement. Include this recommendation when current or forecast conditions, surface or aloft, in your judgment would make flight under visual flight rules doubtful.

PHRASEOLOGY-
V-F-R FLIGHT NOT RECOMMENDED (location) DUE TO (conditions).

d. Synopsis. A brief statement describing the type, location, and movement of weather systems and/or masses which might affect the route or the area. This element may be combined with adverse conditions and/or the VNR element, in any order, when it will help to more clearly describe conditions.

e. Current Conditions. Summarize the current weather conditions over the route/area. Include PIREP's on conditions reported aloft and radar reports or a summary of observed radar echoes from local equipment. Specific departure/destination observations may be included.

NOTE-
When communicating weather information on the TIBS broadcast or telephone, specialists may announce cloud heights in either group form or in hundreds or thousands of feet, such as, seventeen thousand or one seven thousand.

f. Density Altitude. Include the statement "CHECK DENSITY ALTITUDE" as part of the surface weather broadcast for any weather reporting point with a field elevation of 2,000 feet MSL or above that reaches the criteria found in TBL 2-2-1.

g. En Route Forecast. Summarize from appropriate data; e.g., FA's, prognosis charts, weather advisories. Provide the information in a logical order; i.e., climb out, en route, and descent.

h. Winds Aloft. Summarize winds aloft as forecast for the route/area as interpolated from forecast data for the local and/or the adjacent reporting locations for levels through 12,000 feet. The broadcast should include the levels from 3,000 to 12,000 feet, but shall always include at least two forecast levels above the surface.

i. Request for PIREP's. When weather conditions within the area or along the route meet requirements for soliciting PIREP's (para 9-2-5), include a request in the recording.

PHRASEOLOGY-
PILOT WEATHER REPORTS ARE REQUESTED.
CONTACT FLIGHT WATCH OR A FLIGHT SERVICE STATION.

NOTE-
Delete all reference to FLIGHT WATCH when not available at time of broadcast.

j. NOTAM information that affects the route/area may be included as part of the briefing, on a separate channel, or obtained by direct contact with a pilot weather briefer.

k. Military Training Activity. Include a statement in the closing announcement to contact a briefer for information on military training activity.

l. ALNOT Alert Announcement, if applicable. (See subpara 2-2-2j, Phraseology.)

m. Closing Announcement. The closing announcement shall be appropriate for the facility equipment and the mode of operation; e.g., refer to the appropriate channel or briefer for NOTAM and military training activity information.

2-4-3. MONITORING

Meteorological recordings shall be monitored immediately after recording and as necessary to insure accuracy of data. Nonmeteorological recordings shall be monitored and checked for quality and accuracy immediately after recording and once each shift. After each recording, the TIBS shall be checked for availability by calling 1-800-WX-BRIEF or a locally designated phone number. Subsequent checks may be accomplished using local monitoring.

Section 5. HAZARDOUS INFLIGHT WEATHER ADVISORY SERVICE (HIWAS)

2-5-1. GENERAL

a. Hazardous Inflight Weather Advisory Service (HIWAS) is a continuous broadcast of inflight weather advisories including summarized AWW's, SIGMET's, convective SIGMET's, CWA's, AIRMET's, and urgent PIREP's.

b. The HIWAS broadcast area is defined as that area within 150 NM of HIWAS outlets assigned to your facility.

2-5-2. PRIORITY

HIWAS broadcast shall not be interrupted/delayed except for emergency situations, when an aircraft requires immediate attention, or for reasonable use of the voice override capability on specific HIWAS outlets in order to use the limited RCO to maintain en route communications. The service shall be provided 24 hours a day.

a. Make the following announcement if there are no hazardous weather advisories in the HIWAS broadcast area.

PHRASEOLOGY-
THIS RECORDING PREPARED AT (time) ZULU. THERE ARE NO HAZARDOUS WEATHER ADVISORIES WITHIN A ONE-FIVE-ZERO NAUTICAL MILE RADIUS OF THIS HIWAS OUTLET.

b. The update recording shall be completed as soon as practicable, but not more than 15 minutes from time of receipt of new hazardous weather information.

2-5-3. CONTENT

Record hazardous weather information occurring within the HIWAS broadcast area. The broadcast shall include the following elements:

a. Statement of introduction including the appropriate area(s) and a recording time.

PHRASEOLOGY-
HIWAS WITHIN A ONE-FIVE-ZERO NAUTICAL MILE RADIUS OF (geographic area) RECORDED AT (time) ZULU (text).

NOTE-
Border facilities shall append "in domestic U.S. airspace" to the geographical area text in the introduction statement.

b. Summary of WST's, WS's, WA's, UUA's, AWW's, CWA's, and any other weather such as isolated thunderstorms that are rapidly developing and increasing in intensity, or low ceilings and visibilities that are becoming widespread which are considered significant and are not included in a current hazardous weather advisory.

c. Request for PIREP's, if applicable. (See para 9-2-5.)

PHRASEOLOGY-
PILOT WEATHER REPORTS ARE REQUESTED.

d. Recommendation to contact AFSS/FSS/FLIGHT WATCH for additional details concerning hazardous weather.

PHRASEOLOGY-
CONTACT FLIGHT WATCH OR FLIGHT SERVICE FOR ADDITIONAL DETAILS.

NOTE-
Delete all reference to FLIGHT WATCH when not available at time of broadcast.

2-5-4. BROADCAST PROCEDURES

AFSS's/FSS's with broadcast weather outlet coverage totally within commissioned HIWAS areas shall:

a. Discontinue the TWEB procedures contained in Chapter 2, Section 3.

b. Continue TWEB on NDB's in accordance with Chapter 2, Section 3.

c. Upon receipt of new hazardous weather information:

1. HIWAS facilities shall update the HIWAS broadcast.

2. Make a HIWAS update announcement once on all communications/NAVAID frequencies except on emergency, EFAS, and navigational frequencies already dedicated to continuous broadcast services. Delete reference to Flight Watch when those services are closed.

PHRASEOLOGY-
ATTENTION ALL AIRCRAFT, HAZARDOUS WEATHER ADVISORY UPDATE FOR (geographical area) IS AVAILABLE ON HIWAS, OR CONTACT FLIGHT WATCH, OR FLIGHT SERVICE.

d. In the event that a HIWAS broadcast area is out of service, make the following announcement on all

communications/NAVAID frequencies except on emergency, EFAS, and navigational frequencies already dedicated to continuous broadcast services:

PHRASEOLOGY-
ATTENTION ALL AIRCRAFT, HAZARDOUS WEATHER ADVISORY UPDATE IS AVAILABLE FROM FLIGHT WATCH OR FLIGHT SERVICE.

NOTE-
Simultaneous announcements may cause hetrodyne problems on multiple outlets having the same frequency and announcements may have to be rebroadcast to insure compliance.

2-5-5. SUSPENSION

HIWAS broadcasts shall not be suspended for routine maintenance during periods when weather advisories have been issued for the HIWAS outlet area.